

WHAT IS CLAIMED IS:

1. A method for treating Hepatitis B virus (HBV) infection, comprising administering a compound that modulates 5 the synthesis or expression of a target cellular gene or the activity of a target protein to a subject in need of such treatment.

2. The method of Claim 1 in which the target gene is a Pyk2 kinase.

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3. The method of Claim 2 in which the compound is an antisense or ribozyme molecule that blocks translation of the Pyk2 kinase.

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4. The method of Claim 2 in which the compound is complementary to the 5' region of the target gene and blocks transcription via triple helix formation.

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5. The method of Claim 1 in which the target protein is a Pyk2 kinase.

6. The method of Claim 5 in which the compound inhibits the kinase activity of the Pyk2 kinase.

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7. The method of Claim 6 in which the compound is a tyrphostin-derived inhibitor or a pharmaceutically acceptable salt thereof.

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8. The method of Claim 6 in which the compound is a pyrozolopyrimidine, a derivative thereof or a pharmaceutically acceptable salt thereof.

9. The method of Claim 6 in which the compound is a derivative of benzylidenemalonitrile or a pharmaceutically acceptable salt thereof.

5 10. The method of Claim 5 in which the compound interferes with the interaction of Pyk2 kinase with other cellular or viral proteins.

11. The method of Claim 10 in which the compound is a dominant-negative mutant of Pyk2 kinase.

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12. The method of Claim 10 in which the compound is a phosphotyrosine containing peptide or a derivative thereof.

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13. The method of Claim 1 in which the target protein is HBx.

14. A method for treating Hepatitis B virus infection, comprising administering a compound that modulates HBx activities required for viral replication.

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15. The method of Claim 17 in which the compound modulates the activation of a cytosolic calcium release.

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16. The method of Claim 15 wherein the compound is Cyclosporin A.

17. The method of Claim 15 in which the compound inhibits or interferes with the activity of a mitochondrial calcium channel.

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18. The method of Claim 15 in which the compound inhibits or interferes with the activity of Endoplasmic Reticulum calcium channel.

19. A pharmaceutical formulation for the treatment of HBV infection, comprising a compound that inhibits activation of a Pyk2 kinase, mixed with a pharmaceutically acceptable carrier.

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20. A pharmaceutical formulation for the treatment of HBx infection, comprising a compound that inhibits HBx mediated activation of a Pyk2 kinase signaling cascade, mixed with a pharmaceutically acceptable carrier.

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21. A pharmaceutical formulation for the treatment of HBV infection that inhibits the activities of the HBx gene product essential to sustain the HBV life cycle, mixed with a pharmaceutically acceptable carrier.

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